

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**RECEIVED**

MAR 0 8 2002

TECH CENTER 1600/2900

**In re Patent Application of**

**NAKAE *et al.***

**Application Number: 09/527,448**

**Filed March 17, 2000**

**For: PRIMER DESIGN SYSTEM**



**Art Unit 1631**

**Examiner J. Lundgren**

**Honorable Assistant Commissioner  
for Patents  
Washington, D.C. 20231**

**COVER LETTER**

Sir:

[ ] The fee for submission of additional claims is calculated as shown below:

FOR	TOTAL WITH NEW CLAIMS ADDED	TOTAL CURRENTLY ON FILE	CLAIMS PAID	RATE	CALCULATION
Total Claims	17	20	-XX (Over 20)	x \$18	0
Independent Claims	10	13	10 (Over 3)	x \$84	0
MULTIPLE DEPENDENT CLAIM(S)				+ \$280	0
REDUCTION FOR FILING BY SMALL ENTITY (note 37 C.F.R. §§ 1.9, 1.27, 1.28).				x ½	
TOTAL					0

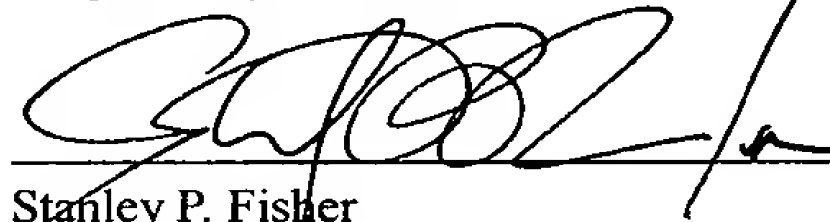
In addition, the below-identified communications are submitted in the above-captioned application or proceeding:

- ☒ Response to Office Action  
(with Claim Amendments)
- ☐ Information Disclosure Statement
- ☐ Preliminary Amendment
- ☐ Substitute Specification
- ☐ Other \_\_\_\_\_

- ☐ Petition for Extension of Time
- ☐ Terminal Disclaimer
- ☐ Letter to Draftsperson
- ☐ Assignment
- ☐ Petition under \_\_\_\_\_
- ☐ Small entity status

- [ ] Please charge my **Deposit Account Number** \_\_\_\_\_ in the amount of \_\_\_\_\_ to cover the fees for \_\_\_\_\_. A duplicate copy of this paper is enclosed.
- [ ] A check in the amount of \$ 0.00 to cover the fee is enclosed.
- [x] The Commissioner is hereby authorized to charge any additional fees associated with this communication, including patent application filing fees and processing fees under 37 C.F.R. § 1.16 and 1.17, or credit any overpayment to **Deposit Account Number 08-1480**.

Respectfully submitted,



Stanley P. Fisher  
Registration Number 24,344

**JUAN CARLOS A. MARQUEZ**  
Registration No. 34,072

**REED SMITH LLP**  
3110 Fairview Park Drive  
Suite 1400  
Falls Church, Virginia 22042  
(703) 641-4200

**March 6, 2002**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

RECEIVED

MAR 08 2002

TECH CENTER 1600/2900

In re Patent Application of

KAKAE *et al.*

Application Number: 09/527,440

Filed March 17, 2000

For: PRIMER DESIGN SYSTEM

Art Unit 1631

Examiner J. Lundgren

Honorable Assistant Commissioner  
for Patents  
Washington, D.C. 20231

#161E  
Plunkett  
3/14/02

RESPONSE AND AMENDMENT UNDER 37 C.F.R. §1.111

Sir:

This is in response to the office action dated December 11, 2001, in the above identified application, the period for response to which has been extended to expire on March 11, 2002 with a one-month extension fee filed herewith. Please amend the above identified application with the replacement paragraphs/sections/claims as follows:

IN THE CLAIMS:

Please cancel claims 6, 8, 11, 24, 28-29 without prejudice or disclaimer, and substitute claims 1, 7, 19, 20, 22 with the following amended claims:

- E1  
Sub  
FI
1. A primer design system, comprising:
    - means for selecting at least one DNA nucleotide sequence from a database including a plurality of different DNA nucleotide sequences of the human genome;
    - means for predicting a plurality of different exons of said selected DNA nucleotide and for storing the predicted exons; and
    - a control unit for controlling the system, said control unit controlling:
      - means for extracting a plurality of partial sequences meeting extraction conditions from the predicted exons, wherein said extraction conditions include a predetermined base length;
      - means for determining positions of said plurality of partial sequences related to each one of said predicted exons and the DNA nucleotide sequence;